

# So Many Gadgets, So Many Aches

By PHYLLIS KORKKI

LOOK around, they're everywhere: hunched shoulders, angled necks and wrists, hands twisted like claws. As people harness their bodies to use more electronic devices in more places, they may unknowingly be putting themselves at a greater risk of injury.

Things were much simpler 20 years ago, when employees worked mainly on desktop computers that could be adjusted for maximum comfort. Now people have added laptops, smartphones and tablets to their arsenals, and they're using — or perhaps misusing — them at work, at home and in trains, planes, hotels and coffeehouses.

Visit any airport waiting area, said [Alan Hedge](#), an ergonomics professor at Cornell, and you can see people using their laptops in awkward and contorted positions. Too much of this activity is bound to take a physical toll.

By positioning themselves improperly, people are at greater risk of eye strain, [tendinitis](#) and [carpal tunnel syndrome](#), to name just a few ailments. Repetitive actions that lead to overuse of muscles and tendons can inflame them, causing pain in the hands, shoulders, neck and back.

Laptops are adding to these problems because “they do not meet any of the ergonomic requirements for a computer system,” Professor Hedge said. The keyboard and the screen are connected, so if you place the keyboard at the ideal position for typing, the screen won't be at the best distance for viewing, he said. Docking stations that provide an extra keyboard or monitor can help solve this problem.

Another lurking danger is touch screens, Professor Hedge said. Keys that move up and down provide more of a cushion for the fingers, whereas the drumming of fingers against screens is harsher and can lead to soreness. For that reason, he said, a tablet should not be used heavily for typing.

And think of our poor thumbs, which have been pressed into a level of service they were never meant to provide. Thumbs are more vulnerable than fingers because they have two bones instead of three, Professor Hedge said.

“If you want to get injured, do a lot of texting,” he added (and that includes the chance that you will collide with something while walking or driving).

Texting has led to an increase in a condition known as [De Quervain's tenosynovitis](#), where the tendons become so inflamed that it becomes painful to move your thumb, affecting your ability to hold things, Professor Hedge said.

These days, you can be texting your boss one minute and a friend the next. And this greater mingling of work and personal life is placing more stress on the body. It can also make it harder to pinpoint what is causing a new physical problem.

Adding a device or routine can tip the scales toward an injury, said Carol Stuart-Buttle of [Stuart-Buttle Ergonomics](#) in Philadelphia. She gave the example of a client who recently began typing on a propped-up tablet computer at home. That placed extra strain on her wrists so that typing at work — never a problem before — suddenly became painful.

To trace a pain's origins, you may need to become a detective in your own life. As you seek to lessen or prevent pain, she said, look for any repetitive and sustained activity in all the devices you use.

Don't discount psychological factors, she added. Mental stress can cause you to tense your muscles, aggravating any existing physical stress.

If you can, consult an ergonomics expert at your company to arrange the best possible setup for your devices at both work and home, along with a discussion of best practices. And notify your employer or consult a doctor if you experience pain or [vision problems](#).

Ms. Stuart-Buttle says a common health issue is vision impairment stemming from a monitor being placed at the wrong distance from the eyes. And she often finds problems like tendinitis because people aren't supporting their arms when they use a mouse, causing a tighter grip and increasing muscle tension.

If you are hunched over while working, something is wrong, she said. Look for the things that are pulling you forward and fix them. Sit back in your chair, support your feet if needed and make sure your arms are relaxed as you type. Check that the screen is close enough so that you can see clearly without strain, enlarging the type size if necessary.

Be aware of these factors and try to approximate them as much as possible when you aren't at your primary workstation.

As you work, “match the technology to the task you want to perform,” Professor Hedge said. “If what you’re doing is a lot of typing, you need a keyboard,” he added. “Don’t try to type ‘War and Peace’ with your thumbs.”

The simplest and most well-worn piece of advice is one that people too often forget to follow: take a break. Separating yourself from your machines gives your muscles, and your mind, a rest that they richly deserve.

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